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**Notice of Allowability****Application No.**

10/601,671

**Applicant(s)**

FUNAKI ET AL.

**Examiner**

Ling-Siu Choi

**Art Unit**

1713

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--**

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 09/16/2004.
2. ☒ The allowed claim(s) is/are 1-17.
3. ☐ The drawings filed on \_\_\_\_\_ are accepted by the Examiner.
4. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☒ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☒ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
  - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
    - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
  - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

**Attachment(s)**

- |   |  |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892)  | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)            |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                | 6. <input type="checkbox"/> Interview Summary (PTO-413),<br>Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),<br>Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment                    |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit<br>of Biological Material          | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance   |
|   | 9. <input type="checkbox"/> Other _____.   |

Art Unit: 1713

### **DETAILED ACTION**

1. This Office Action is in response to the Amendment filed September 16, 2004. Claims 12-17 have been added and claims 1-17 are now pending..

#### ***Examiner's Amendment***

2. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CAR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with Mr. Roland E. Martin on November 1, 2004.

3. The application has been amended as follows:

Claim 6, line 4, change "X3" to --X<sup>3</sup>--;

Claim 12, line 3, change "CF<sub>2</sub>=CFO(CF<sub>2</sub>)<sub>8</sub>F, CF<sub>2</sub>=CFOCF<sub>2</sub>CF<sub>2</sub>CF<sub>3</sub>," to -- CF<sub>2</sub>=CFO(CF<sub>2</sub>)<sub>8</sub>F, --;

Claim 15, line 2, change "10 to 200 m<sup>3</sup>/sec" to --10 to 200 mm<sup>3</sup>/sec--.

#### ***Allowable Subject Matter***

4. Claims 1-17 are allowed.

Art Unit: 1713

5. The following is an examiner's statement of reasons for allowance:

The present claims are allowable over the closest references: E.I. Du Pont De Nemours and Company (GB 1,072,615).

The present invention relates to a fluorocopolymer **consisting essentially of**

(a)	polymerized unit based on tetrafluoroethylene and/or chlorotrifluoroethylene
(b)	polymerized unit based on a fluorinated monomer (excluding tetrafluoroethylene and chlorotrifluoroethylene)
(c)	polymerized units based on at least one member [itaconic acid, itaconic anhydride, citraconic acid, citraconic anhydride]
wherein (a) = 50-99.8 mol %; (b) = 0.1 - 49.99 mol %; (c) = 0.01-5 mol %, based on (a)+(b)+(c)	
a volume flow rate = 0.1-1,000 mm <sup>3</sup> /sec	

(summary of claim 1)

E.I. Du Pont De Nemours and Company (Du Pont) disclose a moldable organic composition consisting essentially of **(1)** 60-80% by volume of a thermoplastic organic polymer of a monomer mixture consisting essentially of (a) 10-95 wt% of one or more ethylenically unsaturated fluorocarbon monomers and (b) 90-5 wt% of one or more ethylenically unsaturated hydrocarbon monomer having less than nine carbon atoms and **(2)** 20-40 % by volume of **inorganic particulate solids**, wherein the fluorocarbon monomer is preferred to be a mixture of **tetrafluoroethylene / vinylidene fluoride** or **tetrafluoroethylene /**

Art Unit: 1713

**chlorotrifluoroethylene / vinylidene fluoride**; the ethylenically unsaturated hydrocarbon monomer can be ethylene (page 2, lines 6-35 and lines 56-59; claim 1). Du Pont further discloses the composition optionally comprises an acidic monomer which can be **itaconic acid** (page 2, lines 60-65; lines 66-69; and lines 110-111). Du Pont furthermore disclose that the composition has a flow rate of less than about 100 at 295°C/2160g (page 3, lines 80-90). However, Du Pont does not teach or fairly suggest the fluorocopolymer composition that does not contain inorganic particulate solids.

In light of the above discussion, it is evident as to why the present claims are patentable over the prior art.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

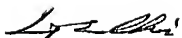
### ***Conclusion***

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ling-Siu Choi whose telephone number is 571-272-1098. The examiner can normally be reached on Monday to Friday.

If attempt to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu, can be reach on 571-272-1114.

Art Unit: 1713

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Ling -Siu Choi

October 25, 2004